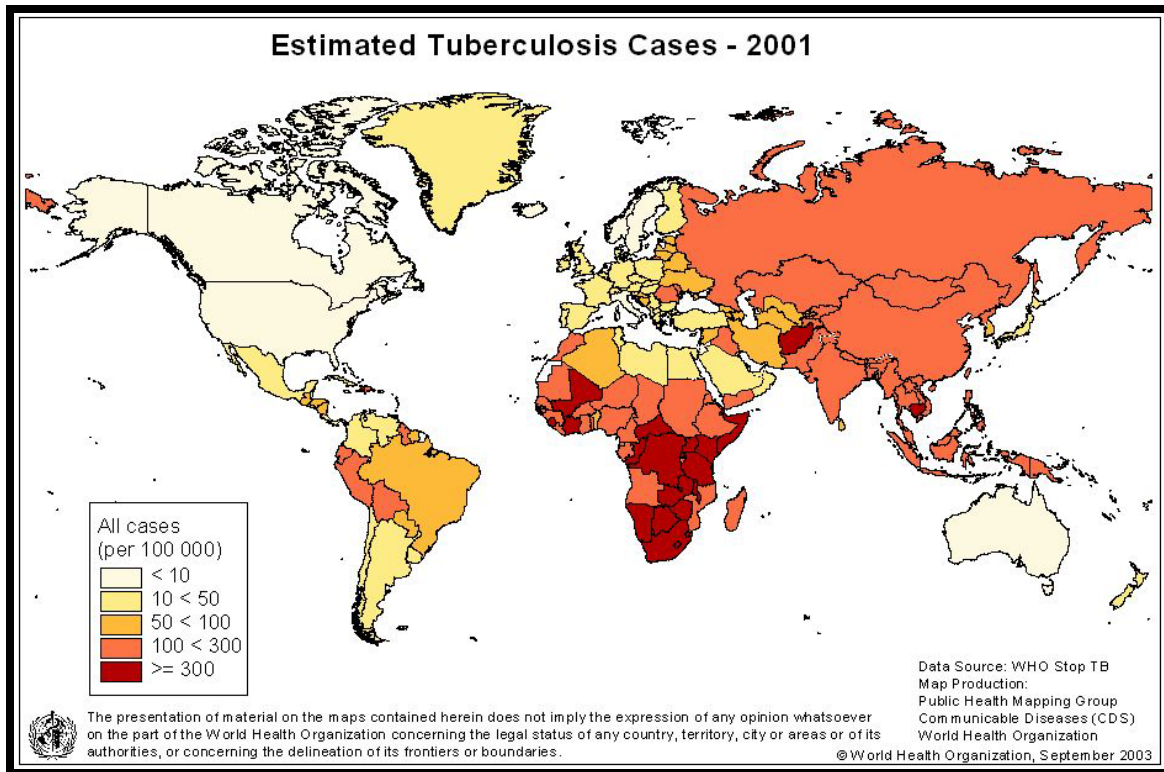


Tuberculosis 2003:

a summary for Santa Clara County



Released July 2004

The purpose of this document is to provide a brief profile for tuberculosis (TB) in Santa Clara County. Information and data pertains only to confirmed cases of tuberculosis. Data is presented for 2003, unless otherwise noted.

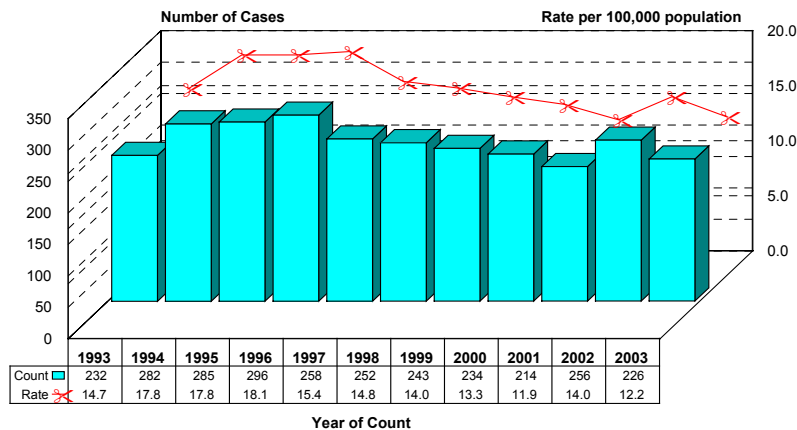
**Tuberculosis Prevention and Control
Health Protection Division**
645 S. Bascom Ave.
San Jose, CA 95128
408-885-4214 (Phone)
408-885-4249 (Fax)
www.sccphd.org/tb

**Epidemiology and Data Management
Health Assessment and Quality Improvement
Division**
3003 Moorpark Avenue
San Jose, CA 95128
408-423-0736 (Phone)
408-423-0737 (Fax)
www.sccphd.org/statistics2

Public Health Department
Santa Clara Valley Health & Hospital System

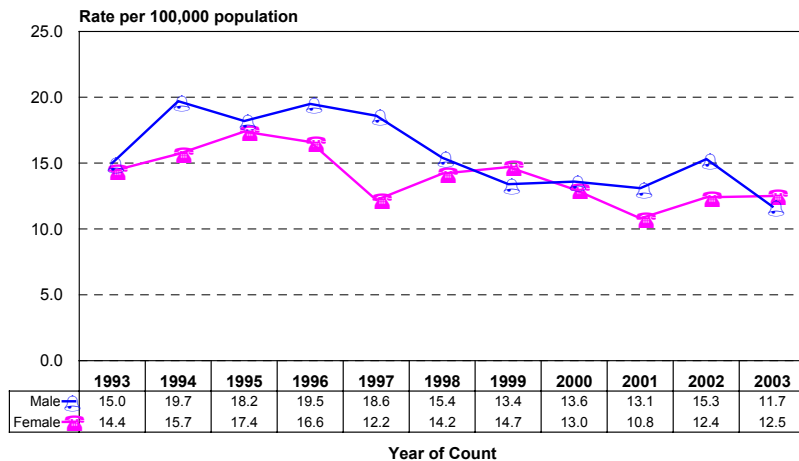


Tuberculosis Case Rates and Counts Santa Clara County, 1993-2003



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.
California Department of Finance, Demographic Research Unit.

Tuberculosis Case Rates by Gender Santa Clara County, 1993-2003



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.
California Department of Finance, Demographic Research Unit.

Cases of TUBERCULOSIS (TB)

- 226 cases of newly diagnosed TB were reported in 2003; this was a 12% decrease in cases from 2002.
- From 1996 to 2001, there was a steady decline in the number of annual cases.
- 12.2 per 100,000 residents in the county had TB. For California the rate was 8.9 per 100,000. The national Healthy People 2010 goal is 1.0 per 100,000 cases.
- Santa Clara County had the seventh highest TB rate in California, after San Francisco, Imperial, Long Beach, Fresno, Monterey, and Alameda health jurisdictions.
- From 1999 to 2003, 1.4% of cases were deceased at time of report to the county.
- In that same time period, 4.3% had a previous diagnosis of TB.

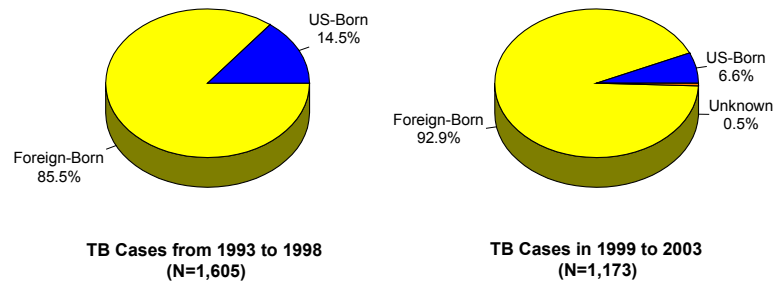
GENDER

- The rate of disease in women was higher than that of men (12.5 v. 11.7 per 100,000). Rates between the groups have varied. For most years rates have been higher in men.

AGE

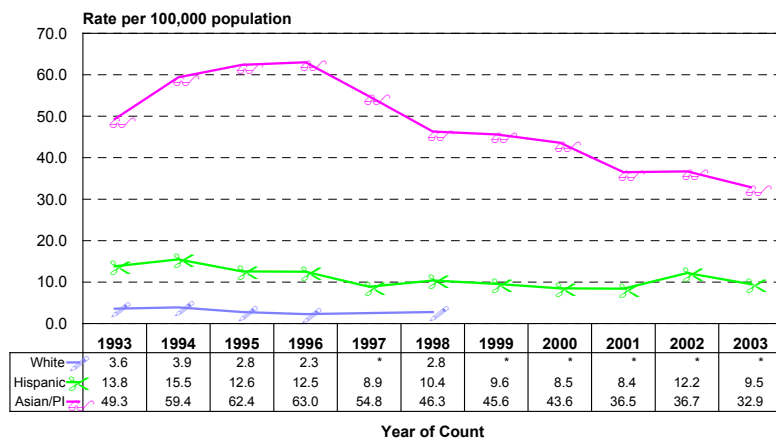
- 85.4% of cases were 25 years of age or older. 34.1% of cases were 55 years and older.
- Rates have been falling or remained stable for all age groups, except for those 25 to 34 year olds and those age 65 years and older.

Proportion of Tuberculosis Cases by Country of Origin Santa Clara County, 1993-2003



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

Tuberculosis Case Rates by Race/Ethnicity Santa Clara County, 1993-2003



* Fewer than 20 cases, annually; not able to calculate rate.

Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.
California Department of Finance, Demographic Research Unit.

- The rate for 25 to 34 year olds was 10.6 per 100,000 in 1993 and 18.9 per 100,000 in 2003.
- Since 2001 the TB rate among those 75 years and older have been increasing from 22.7 to 31.4 per 100,000. As well, rates remained high in the 65 to 74 years olds (20.8 per 100,000).
- Pediatric cases (0-14 years old) accounted for only 4.9% of cases.

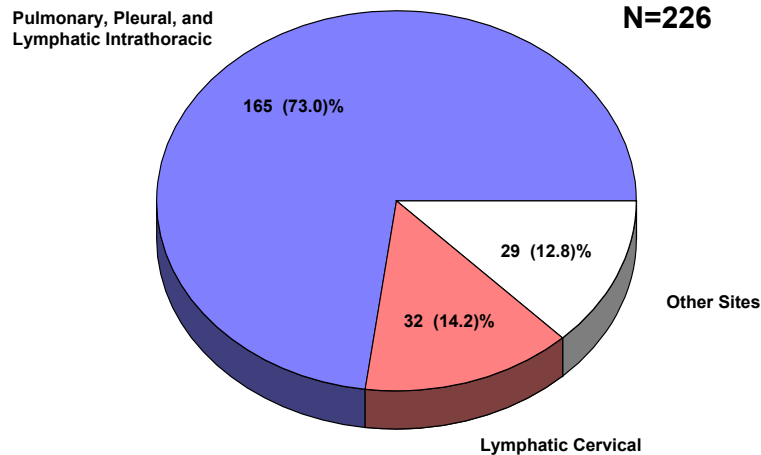
DEMOGRAPHIC DIVERSITY

- 92.5% of cases were born outside the United States. In 1993, that percentage was 78.9%.
- The top five countries of birth for persons born outside the U.S. were Vietnam (76), India (36), Philippines (34), Mexico (29), and China (8).
- Among foreign-born cases, 24.3% were diagnosed within one year from arrival in the U.S., while 25.7% of cases were diagnosed 14 years or more from time of arrival.
- Among all TB cases, persons reporting themselves to be Asian and Pacific Islanders (A/PI) had the highest TB rate at 32.9 per 100,000. Hispanics had the second highest rate at 9.5 per 100,000.
- Blacks and Whites had very low TB rates; both groups had fewer than 20 cases.

RESIDENCE

- Santa Clara County has six public health regions; the region with the most cases from 1999 to 2003 was Region 2 (*East Valley*), followed by Region 5 (*Narvaez*), and Region 1 (*North County*). *East Valley* comprises Milpitas, Berryessa, and Alum Rock; *Narvaez* comprises South San Jose, Evergreen, Santa Teresa, and Almaden; and *North*

Major Sites of Disease for Tuberculosis Cases Santa Clara County, 2003



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

Results of Sputum Smears among Pulmonary TB Cases Santa Clara County, 1999 - 2003

		1999	2000	2001	2002	2003	Total
Positive	Count	55	66	52	62	64	299
	% within Year case counted	32.9%	41.0%	34.9%	37.1%	40.5%	37.3%
Negative	Count	91	82	84	95	78	430
	% within Year case counted	54.5%	50.9%	56.4%	56.9%	49.4%	53.6%
Not done	Count	21	13	13	10	16	73
	% within Year case counted	12.6%	8.1%	8.7%	6.0%	10.1%	9.1%
Total	Count	167	161	149	167	158	802

Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

County comprises Palo Alto, Mountain View, Los Altos, Los Altos Hills, Sunnyvale, Santa Clara and Alviso.

RISK FACTORS OF INTEREST

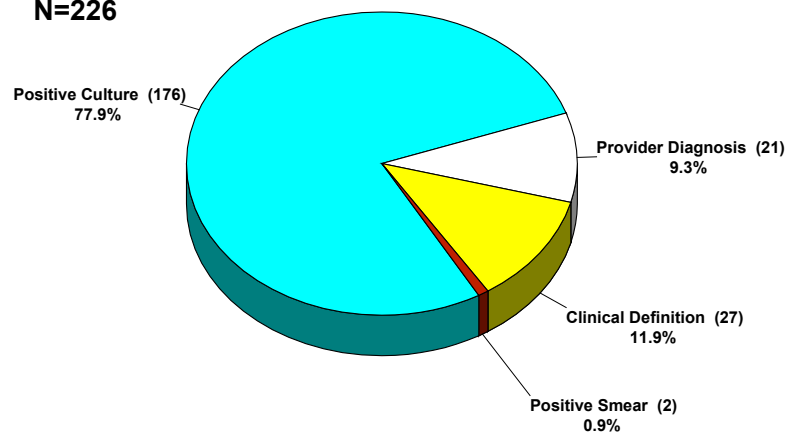
- From 1999 to 2003, 3.1% of cases were homeless in the year prior to diagnosis.
- 1.3% of cases in the same time period were residents of a correctional facility at the time diagnosis and 1.9% were residents of a long-term care facility.
- For the years 1999 through 2003, 2.1% acknowledged using non-injecting (illegal) drugs in the year prior to diagnosis.
- 3.8% of cases between 1999 to 2003 reported excessive alcohol use in the year prior to diagnosis.
- 47.5% of cases reported not being employed in the 24 months prior to diagnosis. Upon further analysis, those 55 years and older were determined 6.6 more times likely to be unemployed compared to those 54 years and younger.

CLINICAL FEATURES

- Pulmonary, pleural, and lymphatic intrathoracic cases accounted for 73.0% cases.
- 69.5% of all cases had pulmonary TB. Another 14.2% had lymphatic cervical TB.
- Among pulmonary cases, 40.5% had a positive sputum smear; 10.1% did not have a smear completed.

Tuberculosis Cases by Verification Criteria Santa Clara County, 2003

N=226



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

Results of Sputum Cultures among Pulmonary TB Cases Santa Clara County, 1999-2003

		1999	2000	2001	2002	2003	Total
Positive Sputum	Count	118	114	105	123	114	574
	% within Year case counted	70.7%	70.8%	70.5%	73.7%	72.2%	71.6%
Negative Sputum	Count	28	33	29	34	28	152
	% within Year case counted	16.8%	20.5%	19.5%	20.4%	17.7%	19.0%
Test Not Done	Count	21	13	13	10	16	73
	% within Year case counted	12.6%	8.1%	8.7%	6.0%	10.1%	9.1%
Total	Count	167	161	149	167	158	802

Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

- Among pulmonary cases, 72.2% had a positive culture; 10.1% did not have a culture completed.
- Diagnosis of TB is made in several ways. Below is the breakdown of verification criteria of confirmed cases:
 - Positive culture (77.9%)
 - Clinical Definition (11.9%)
 - Provider Diagnosis (9.3%)
 - Positive Smear Only (0.9%)

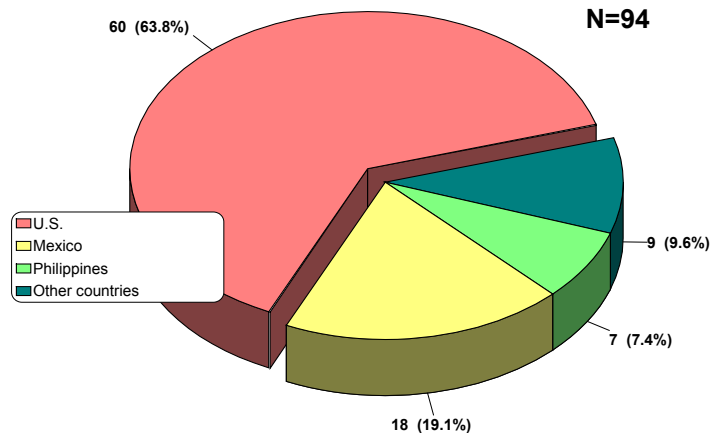
DRUGS AND DRUG RESISTANCE

- 94.5% of living cases who had started treatment were on an initial drug regimen of isoniazid (INH), rifampin (RIF), pyrazinamide, and ethambutol or streptomycin.
- In 2002 of the 205 cases with positive cultures and susceptibility testing for INH, 10.7% showed resistance to this drug.
- Out of the same cases, 22.4% had resistance to at least one first-line drug (isoniazid, rifampin, ethambutol, pyrazinamide or streptomycin).
- From 1999 to 2003 there have been only eight cases of multi-drug resistant (MDR) TB, which is defined as resistance to at least INH and RIF.

TREATMENT

- Among 226 cases who started treatment in 2002, 42.9% received their clinical care from the county, while 46.5% received care from private providers, and 6.2% received care from both.
- While on therapy, 50.0% of 2002 cases received their medications by direct observed therapy (DOT) from a Public Health Department staff person.

**Tuberculosis Cases among Children Five and Under by
Country of Origin
Santa Clara County, 1993-2003**



Source: Santa Clara County Public Health Department, Epidemiology and Data Management, Tuberculosis Records 2004.

- In 2001 of the cases starting therapy, 73.3% completed therapy in 12 months or less, 6.2% completed in more than 12 months, and 11.4% had no information available.

PEDIATRIC CASES

- From 1993 to 2003, there were 94 cases five years and younger and 59 cases between the ages of six and 14.
- Among TB cases age five years and younger:
 - 47.8% of cases were one year or younger at the time of diagnosis.
 - 63.8% were born in the U.S. and 19.1% were born in Mexico.
 - 56.4% were Hispanic and 37.2% were A/PI.
 - The majority of Hispanic and A/PI children were U.S. born (62.3% and 65.9%, respectively).
- Among TB cases six to 14 years of age:
 - 54.3% of cases were between six and nine years of age at time of diagnosis.
 - 22.0% of these children were born in the Vietnam, 16.9% were born in Mexico, and another 16.9% were U.S. born.
 - 54.2% were A/PI and 23.7% were Hispanic.
 - The majority of A/PI and Hispanic were born outside the U.S. (90.6% and 78.5%, respectively).

Denominator disclaimer: It should be noted that rates for the years 1993 to 2003 were computed by the California Department of Finance using population estimates projected from the 1990 Census and not actual population counts from the 2000 Census. When population estimates based on Census 2000 become available, rates using these estimates will differ from rates presented in this document. The extent of difference in rates will vary by age, sex, and race/ethnicity.